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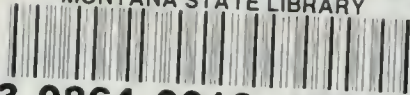
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Report of the

*Montana Fish and
Game Commission*

1921--1922



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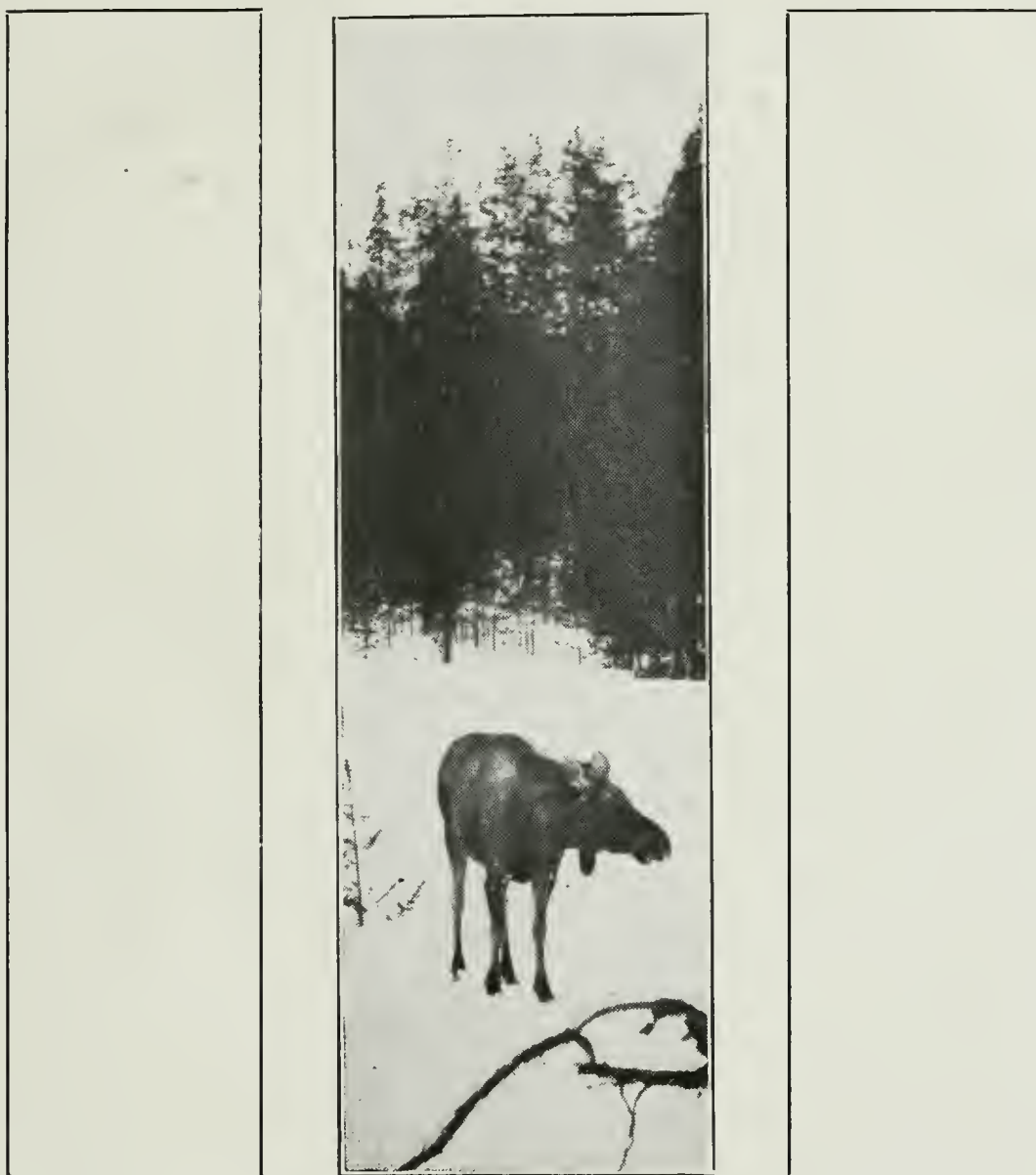
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BULL ELK CALLING

Biennial Report of Montana Fish and Game Commission



Including Special Report of Superintendent of Hatcheries
and a Brief Outline of the Work of the Biological Branch

C. A. JAKWAYS - - State Game Warden

STATE OF MONTANA

DEPARTMENT OF FISH AND GAME

—*—*

Commissioners

T. N. MARLOWE, Chairman,		...Missoula
E. A. WILSON	Livingston	J. L. KELLY..... Anaconda
H. C. CRIPPEN	Billings	JOHN A. TRESSLER Malta

—————

C. A. JAKWAYS, Secretary and State Game Warden	Helena
J. H. BRUNSON, Superintendent State Fisheries	Helena
R. H. HILL, Assistant State Game Warden	Helena
LEONARD C. YOUNG, Chief Clerk	Helena
E. A. BRUNSON, Clerk to Supt. State Fisheries	Helena
MARGARET NAGLE, Stenographer	Helena

—*—*

Special Deputy Game Wardens

FRANK BELLER	Gardiner
T. A. BERKIN	Roundup
THOS. DANAHER	...West Yellowstone
T. H. EDMUNDS	Dillon
F. C. FESSENDEN	McAllister
WM. H. HILL	Thompson Falls
AL. T. HOLMES	...Billings
W. W. KENNEDY	Missoula
J. P. McCAFFERY	Anaconda
SINCLAIR MACDONALD	Conrad
FRANK MARSHALL	Bozeman
L. MINUGH	Malta
HARRY MORGAN	Ovando
BRUCE NEAL	Gilman
P. W. NELSON	Livingston
A. A. O'Claire	Kalispell
F. E. PILLING	Butte
E. A. RICHARDS	Columbus
A. D. ROUSHAR	Great Falls
FRANK UPHAM	Libby

Letter of Transmittal

— * — * —

His Excellency Joseph M. Dixon,
Governor of Montana,
Helena, Montana,

Dear Sir:

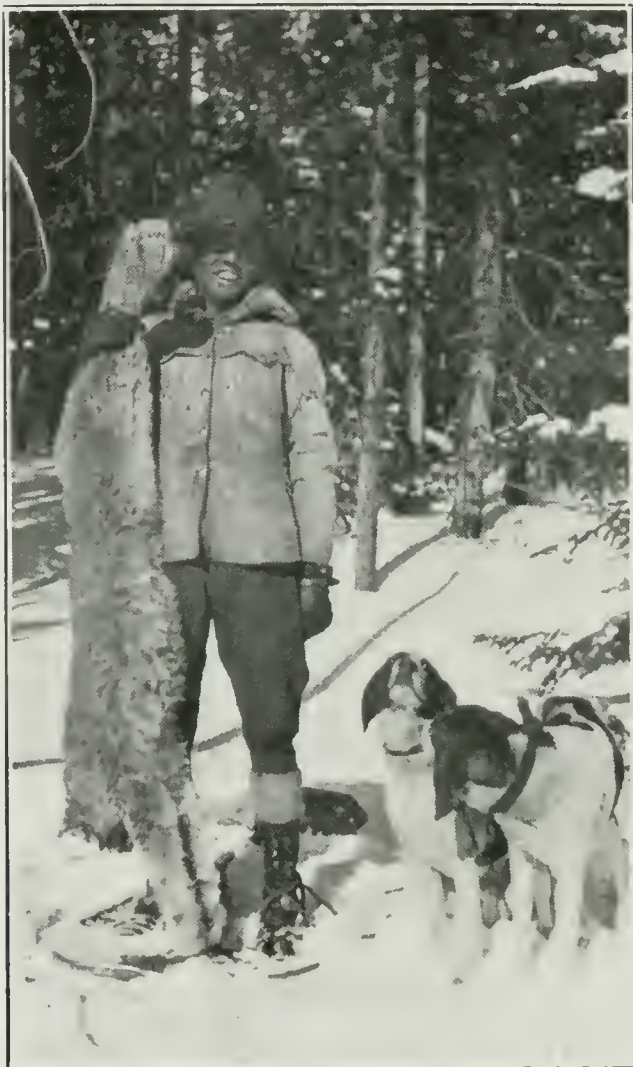
As required by law your Fish and Game Commission desires to submit the following report of its work from May 1st, 1921 to Dec. 31st, 1922.

THOS. N. MARLOWE, Chairman,
JOHN A. TRESSLER, Commissioner
JOS. L. KELLY, Commissioner
HENRY C. CRIPPEN, Commissioner
E. A. WILSON, Commissioner.

C. A. JAKWAYS Secretary
State Game Warden.

J. H. BRUNSON,
Supt. Hatcheries.

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Recommendations and Remarks

—*—*—

Helena, Montana.

To the Honorable Fish and Game Commission:

The Fish and Game Department, as at present constituted, was placed under the administration of the writer by your body on April 17, 1921. Acting under your instructions, I have proceeded with the work and desire to submit the following report as a summary of our activities for the fiscal year ending May 1, 1922. A detailed financial summary will be found on the last pages of this pamphlet.

Co-operative agreement with the United States Forest Service was sought and obtained. Great good has resulted. All Forest Officers and employees who are permanent have been commissioned as Wardens without salary. Their assistance has been considerable and bids fair to increase, as a better understanding is reached relative to the work of the two Departments.

In conformity with the Statute, a co-operative agreement with the United States Bureau of the Biological Survey has been perfected for the purpose of administering the fund created by the setting aside of 25 cents from each license fee for the purpose of destroying predatory animals. A statement in detail of the work under this agreement will be found elsewhere in this pamphlet.

We have been favored with a very considerable amount of help in the way of voluntary subscriptions to our funds. The Montana Power Company has given us \$3,500.00 cash, a site, free water and free current for pumping for the Great Falls Hatchery. The City of Lewistown has given us \$1,200.00 cash, a site, and water for the new hatchery at that point. The City of Big Timber has given a site and water free for the hatchery. Mr. W. A. Clark, Jr., has given us \$1,675.00 to use in building a hatchery at Ovando. Mr. Marcus Daly has turned over his magnificent hatchery at Hamilton to this Department for a period of ten years without rent, and has given us very great assistance and co-operation in many other ways. The confidence shown in our efforts by such men, companies, and cities is a most potent stimulant to continued and greater effort and we hope to merit its continuance.

Some twenty-three hundred dollars (\$2,300.00) was received in interest on our funds loaned to the General Fund. This is a new departure and has been of help.

With your approval the undersigned was able to put into effect a regulation for properly tagging the skins of beaver. This rule has not only been most popular with those who have secured permits to trap beaver, because of the fact that our Department tag identifies and legalizes each skin, but we have tagged more than 3,400 beaver skins and added about \$3,500.00 to our exchequer.

Believing that the planting of large fish was essential to success in building up our fishing streams, the writer brought this matter to the attention of the Commission and the sportsmen over the State through the kindness of the press. Great interest was shown in the matter. As a result, a number of rearing ponds have been constructed at various points in the State where the small fry can be placed isolated from larger fish until they have attained greater size and have become accustomed to living under natural conditions before being placed in the streams. Four of these ponds have been built at Greenough Park in Missoula, and, owing to the fact that branch and main

line railroads radiate from Missoula, the fingerlings from these ponds are being supplied to the Coner d'Alene branch in Mineral County, Sanders County, Ravalli County, part of Powell and Granite County. In fact, all the streams in Montana west of the Continental divide receive benefit from these ponds, except a few tributaries of the Kootenai in Lincoln County. Some idea of how rapidly these ponds develop the fish will be seen when it is known that 80 cans of fry planted in the ponds in June and July required 400 cans to haul them out in October.

Ponds have been built near Bozeman, at three points along the West Gallatin river, Belgrade, Emigrant, and the Ovando ponds are still in use as brood ponds. In order to secure the best results in planting fish, much attention has been given to the proper instruction of those meeting them at the train and taking them out to the streams.

The reports received showing the result of this work is certainly most gratifying and this work will be enlarged. The planting of small trout fry has been discontinued.

The Commission believes that small subsidiary hatcheries distributed over the State will not only lessen the cost of distribution but will result in much less loss on account of lessening the distance and time getting the fry from the hatchery to the streams. With this object in view, the hatchery built at Salmon Lake and turned over to the State by the Western Mont. Fish and Game Ass'n has been discontinued owing to the water being too warm, and has been rebuilt in a larger way at Ovando. This plant will supply the entire Blackfoot Drainage, which having no railroad, makes it necessary to produce fish locally to restock, as hauling a sufficient number of fish by truck from the railroad to stock so large a territory has been found an impossible task. These streams are fished from Missoula, Butte, Deer Lodge, Anaconda and Helena, and require great numbers of fish to keep them up.

Five new fish hatcheries have been constructed and put in commission, as follows: Great Falls, Red Lodge, Big Timber, Lewistown and Ovando. The Daly Hatchery at Hamilton has been very successfully operated by this Department this season.

An order has been secured from the United States Secretary of Agriculture, authorizing the regular salaried Game Wardens to destroy Merganser ducks, Blue Herons and other fish eating birds on all trout waters except the Yellowstone and Missouri rivers. It is believed that the destruction of these birds, and the Pelican, which is not protected, will result in some increase of our fish.

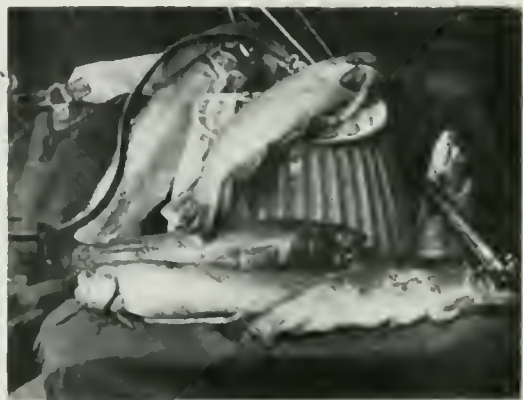
A source of revenue from the sale of furs and skins, taken from the predatory animals, caught by our trappers has been a welcome addition to our fund.

Thanking You for your support, and awaiting your further instructions, I beg to remain,

Very respectfully yours,

C. A. JAKWAYS, Secretary of the Commission.

State Game Warden.



Montana--The Sportsman's Paradise

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For years the name "Montana" has been synonymous with the sportsman's Paradise. Nearly all varieties of game are found in Montana and the best game fish are abundant. The lordly elk; the crafty big horn; the beautiful white mountain goat; blacktail and whitetail deer, and all the varieties of grouse found in such latitudes are here to be found. Antelope still are here but are becoming scarce. The region adjacent to Yellowstone Park is well supplied with elk and deer and the portion of the state lying west of the Continental Divide is one great hunting ground.

For those who wish to find a character of wild animal who can fight as well as run, the Great Silver Tip Grizzly bear, Gray Wolf, Mountain Lion and Lynx are still to be found by those who are willing to go into the mountain fastness where their abode is.

Many valuable fur bearers also exist with us here. Wonderful duck and goose hunting can be found nearly all over the State and recent restriction on grouse hunting has resulted in great increase in these birds.

This department has made very successful plants of Chinese Ring Neck Pheasants and Hungarian Partridges during the past two years, and it is expected an open season can be had on these birds in a very few years.

The fishing resources of Montana are varied. The peer of them all is our Native Black Spotted Trout. Next is perhaps the Rainbow Trout, while this variety is an alien introduced from the coast, it has become one of our most favored varieties. The grayling, where found, is a beautiful fish and a most excellent food fish. The Dolly Varden Trout, Loch Leven and Eastern Brook also are plentiful and all have their admirers. Whitefish abound all over the State and as we approach the warmer waters of Eastern Montana tributary to the Missouri, and Yellowstone rivers, Catfish, Ling, Sturgeon and Pike are found. Through some mistake Carp have found their way into



A DISAPPEARING SPECIES

the Missouri river and are very plentiful. St. Mary's Lake in Glacier Park contains the succulent Great Lakes Whitefish and Mackinaw Trout. These fish have been planted in Flathead Lake and it is hoped this large body of water may be made to furnish commercial fishing in the near future with a view to furnishing our people with food fish in the markets.

A most interesting and successful experiment has been carried out in the introduction of Chinook Salmon into our inland lakes. In Lake Ronan these fish have been taken weighing 15 pounds. They have been planted in many other lakes with good results.

Black Bass and Sun Fish, also Yellow Perch have been introduced to some of our waters successfully. The demand for more fishing occasioned by the advent of the automobile, and the consequent desire of the city dweller to get out in the open has drawn heavily on the resources of the Fish and Game Department. If we are to supply this demand, more adequate funds will be needed. It can be done, but it takes men, equipment and money.

I wish to mention the great importance of protection for our fur bearers. Hundreds of thousands of dollars worth of furs can be produced in Montana with no investment of capital, only protection is needed. Muskrats are becoming scarce; Marten almost extinct in some places; beaver can be protected when not interfering with irrigation.

Bear, I believe, should only be trapped in cases where they are stock killers. They are a very good game animal and should have some protection.

Our department is non-political, our Commission is appointed by the Governor and is composed of three republicans and two democrats. We receive no appropriations of money and are supported entirely by the receipts from license sales, fines, confiscations and the sale of furs received from State Trappers.

The propagation and distribution of fish can be increased to almost any amount if the funds to employ trained men and to purchase the needed equipment are placed at our disposal.

With our natural setting in the mountains, the great areas of game cover and the matchless streams and lakes for the home of great numbers of fish, no good citizen should hesitate in making a great effort to perpetuate and increase our wild life resources.



Game Bird Distribution and Propagation

—*—*—*—

By Thos. N. Marlow, Chairman State Fish and Game Commission.

Without doubt one of the most important and therefore popular things the State Fish and Game Commission is and has been doing in the way of propagation is the introduction and liberation of game birds in the State. This important work was commenced in 1918, when about 30 dozen Gambel Quail and 4 dozen Ring-necked Pheasants were purchased and liberated in different places in the State.

It is doubtful whether the quail did any good, at least we have no report from any part of the State where they were liberated that any of

these birds are now hatching here. The Pheasants were sent to Flathead County where Major M. D. Baldwin, then a member of the Commission, took charge of them and liberated them in likely places in the Flathead Valley. The climatic conditions of this beautiful and fertile valley well suited these fine game birds and they have done exceedingly well there.

About the same time, or possibly even before this time, Mr. Marcus Daly, who owns a large ranch in the Bitter Root Valley, near Hamilton, imported a number of these birds and liberated them on his property. For some reason or other, however, there seemed to be an over-production of male birds in the Daly flock and they have not increased so well as could be expected, though there are several hundred birds now on his premises.

In 1920, the Commission purchased 150 pair of Ringnecks from Oregon, and these were sent to several sections in the State and the reports we have been able to get on them are that they have done well, especially those sent to Glasgow and Lewistown.

In 1921, the Commission took up this phase of propagation work in real earnest. At a meeting of the Commission held in January of that year at Helena, the members of the Commission authorized the purchase of 2,000 pairs of Hungarian Partridges. We were unable to get the Hungarians, but the pheasants were purchased from the Benson Pheasant Farm, at Silverton, Oregon. The Commission also, later in the season, authorized the purchase of 5,000 pheasant eggs which were sent to various part of the State and were hatched by willing and enthusiastic men and women who were anxious to stock their part of the State with these very fine game birds. As far as can be ascertained, about 500 birds were raised to maturity from these eggs and later liberated near where they were hatched.

When these eggs were first received, the Commission agreed, in addition to furnishing the eggs, to pay \$2.00 per bird for each bird that was raised to maturity and liberated; but after operating under this plan for one year we found that we could easily dispose of 20,000 or 25,000 eggs, or more than all the eggs we could purchase, and have



CHINESE PHEASANT

them hatched without charge by people who were anxious and willing to help out in this kind of work, so the matter of paying for hatching and raising birds was discontinued. In fact many of those who had raised birds and liberated them, declined pay for it.

The shipments of the birds purchased for 1921 were commenced in early August and continued until all of the birds purchased had been shipped. Some of these birds were sent to each of the 54 counties of the State. The reports which we later received from them were most gratifying and as the Ringneck is such a splendid addition to our native birds, there is a great demand for them from all parts of the State.

During the year 1922, 1,500 of these birds were liberated in the State. Some of these birds are being sent to every county in the State. The birds purchased for 1922 were purchased in trios; that is two females to each male, as the Ringneck is polygamous and it was thought by ordering these birds in this proportion, better results could be obtained. Of course, it is too early to see any results from the birds liberated this year, but we have on record many encouraging reports from the birds liberated in 1921, and many requests for more of them and it is to be hoped that this kind of work can be kept up and even increased in the State. In addition to purchasing 1,500 birds, over 4,000 eggs were purchased and sent out over the State for hatching. Our reports show that about 600 birds were raised and turned loose from this source.

The Ringneck is a very splendid game bird. A large cock will weigh about 4 pounds and the meat of these birds is white and not unlike that of our native pheasant. This fact, together with the fact that they are very beautiful in appearance, swift on the wing and can run like an ostrich makes them a very valuable game bird for our State.

As hereinabove stated, we were unable to secure any Hungarian Partridges for the year 1921, but in 1922 we were able to secure 500 pair of these Hungarians. These birds were shipped from Central Europe where they are exceedingly plentiful and very popular with the sportsmen. They were shipped in crates, 18 birds being shipped to a crate. The exporter started 1,080 birds to us, to make sure we would receive our full order. Out of the 1,080 birds started us, only 17 were lost on the trip across the Atlantic. More, however, were lost in the shipment by express from New York to Montana points, but this was to be expected.

The birds received were sent to 45 of the 54 counties in the State. The reason why these birds were not sent to all of the different counties of the State, was because of the fact that they had been on the way so long, it was thought best to send them to the most direct and accessible places within the State.

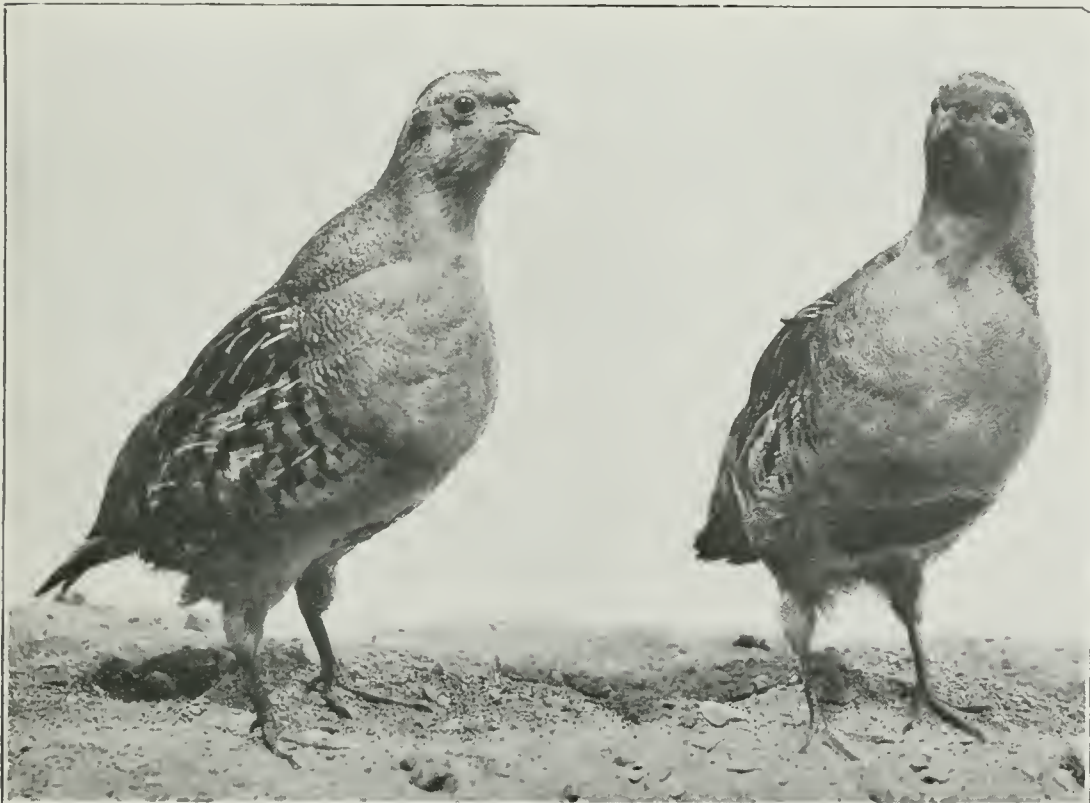
The birds were liberated about the first of May of this year and the reports which we have on them are simply wonderful. There is no doubt but what this bird is going to do well in this State, and from the reports which we have received so far it would seem as though the Hungarian will do better in this state than any other bird which we can import. From the best information which we can obtain, these birds were first liberated in this country about fifteen years ago when better than 100 pair were liberated in Spokane county, Washington. The first birds liberated there did not do very well but later a second shipment was received and this second shipment has done far better than was ever expected. From the shipment liberated there in Spokane County, practically the entire State of Washington has been stocked and they are to be found in that State in some localities by the thousand.

Not only has the State of Washington been stocked from this shipment but some of them have drifted over into certain counties in Idaho, and portions of Idaho stocked with them. We are informed that in Spokane County alone, over 100,000 of these birds were killed during the open season of 1920 and that it is estimated that this number can be killed there each year without depleting their brood stock.

The same success has been had with the Hungarian in Alberta, where a number of years ago a shipment of these birds were liberated. They have done so well there that they now have an open season on them in that country and a large number of birds are killed each year. The birds have scattered from where they were liberated all over the province of Alberta and some of them have even drifted down into the Northern tier of counties in Montana.

In a letter received from the Game officials of that province, it is stated that it is not necessary to feed these birds there in winter. Certain it is that if they can withstand the rigors of the Canadian winters they can withstand those of Montana. As a matter of precaution, however, I believe that should the snow become deep and stay long, feed boxes filled with grain and grit should be put out.

The Hungarian Partridge is as game a bird as a sportsman ever hunted. He lies well to a dog and is found in flocks a good deal like the quail, but is much faster than the quail. He is about twice or nearly three times the size of an ordinary quail. The head and throat are a reddish brown with faint reddish stripes on the crown. The neck and breast are a bluish gray with a large spot of brown on the breast. The back is gray striped with brown, the wings are brown mottled with gray and yellow. A glance at the cut of the two Hungarians shown in this article will give you some idea of this splendid bird.



HUNGARIAN PARTRIDGES

Herewith are portions from some of the reports received by the writer showing how these birds are doing

"Two flocks of young birds, about half grown, have recently been seen. One had 19 young ones and the other about the same number. A nest was found early in the season in which there were 24 eggs.

"E. H. GOODMAN, Townsend."

"The Hungarian Partridges are doing fine.

GEORGE T. HANSEN, Wibaux."

"In regard to 'Hun' Partridges will say that I had just made a trip out to where we put them, last Sunday and am pleased to say that I found three separate coveys, all doing fine. The coveys are so large that I could not count them.

H. A. GAYHART, Kalispell."

"Mr. Kaiser, our County Commissioner, and on whose ranch we released them, informs me that he saw two flocks with twelve young birds each, dusting by the road in a grove of poplars, a few days ago.

"E. P. BALLARD, Philipsburg."

"A short time after the birds were turned out the boys reported seeing one or two coveys of young ones and I have no doubt that since then more of them have hatched.

H. E. RICKARD, Poplar."

"From all reports they are doing fine and only this week we saw a covey of 12 young ones within half mile of town.

"R. A. STAM, Chinook."

"I have visited the section where they were liberated yesterday and the residents report having seen two pairs with young. One pair with 10 birds, another with 13.

"E. A. WILSON, Livingston."

"Young birds, lots of them. One farmer told me that he saw two hens and they only had twenty-nine little 'Huns' with them, so you see that there is no race suicide in their ranks. Another farmer told me that there were at least fifty young birds on his place so we can safely say that we have at least one hundred birds hatched and doing well from the original nine pair that were liberated.

"HUGO KLOSSNER, Eureka."

"One of these hens came in to Mr. Kent's yard with 12 little chix following her. Since then another hen has been located with 11 more and another nest found not hatched.

"RAY C. THOMPSON, Hardin."

"The Hungarian Partridges have done extremely well and the hens seem to have broods of about fifteen each. I am sure that they will be a great success as we have a number that have migrated in here from Alberta. Alberta stocked with them some years ago and they have multiplied very rapidly. The ones that have come in here from Canada are mostly in the Sweet Grass Hills and on Milk river. There were several bunches of over fifty this spring. There are a few on the Marias river, one bunch of about twenty on the Malone ranch. I did not know what they were until I saw the ones shipped here by the Game Department.

"SINCLAIR MacDONALD, Conrad."

"I am glad to advise that we have been successful in finding two coveys of about ten young birds, each, of Hungarians.

"M. B. HAMPTON, White Sulphur Springs."

"The reports I got concerning these birds early in the summer were that they were nesting and apparently getting along all right.

"O. W. BELDEN, Lewistown."

"One pair of birds has hatched and raised a flock of fifteen.

"JOSEPH SMITH, II., Deer Lodge."

"From the best information I can gather the birds are doing fine.

"SEN. J. E. FOSTER, Harlowton."

"Regarding the partridges. I saw the party the other day on whose farm I liberated them and he informed me that there were twenty young birds in one bunch. I am glad to hear this. I did not expect there would be any hatchings this spring from them.

"L. W. BUSCH, Baker."

"I saw a bunch of young birds with some old ones, probably 20 young ones.

"E. J. HIRSHBERG, Choteau."

"I am very glad to report that the Hungarians are doing fine.

"We have coveys of young birds with 14 in them. This is far beyond my expectations from these birds after the long trip they made and the condition they were in when they came. We are guarding them very closely and have them in an ideal country.

"I think this is the best bird you could possibly get and would recommend that you get all you can of them.

"W. R. WILCOXSON, Great Falls."

"Our actual records with the Hungarian Patridges, up to this date show: with five hens that we have checked, these hens have by careful count 74 young, healthy birds following them, one hen has 19 young; we think this is going to be a much better bird for us than the pheasant.

"FRED B. WILLIAMS, Bozeman."

"Twenty-five Hungarian Patridges were released on our ranch and we are constantly running across these birds. Only last week we saw a covey of about twenty young ones.

"EDITH A. KASSING, Superintendent State Vocational School for Girls, Helena."

"At both places where these birds were liberated, I got very favorable reports. They have been seen frequently, and in one of the places two broods of young ones have been noticed.

"D. G. STIVERS, Butte."



BIG HORN

Closed Fishing Season Has Approval of Real Sportsman

—*—*—

Missoula, Montana, December 20th.

Mr. C. A. Jakways,
State Game Warden.
Helena, Montana.

Dear Sir:

To my mind the most outstanding feature of your department is the thorough preparations which you have made for future effective work. Whenever a large enterprise is undertaken or when much territory is to be covered the preliminary steps are most important, and if wisely taken usually result in the hoped-for results. The activities of your department meet the approval of all good sportsmen.

Some criticism of an order of the Commission establishing a closed season for fishing has been heard, some newspaper comment adverse thereto published, but upon the whole the order has met with approval by those having the most experience and knowledge of various streams. To anyone who has seen the many fishermen along the streams, the automobiles parked in great numbers even in remote and places difficult of access, must realize that some steps must be taken to curb the taking of fish at all times and all seasons. When it is considered that during the spawning season for the native trout, that is during the early spring, that in their progress up the streams to spawn that they will congregate in large numbers in still places, in pools below rapids, in fact in all places where a resting place may be found, and that in such places may be caught in large numbers, the reason for such restriction of spring fishing may find warrant. When it is further taken into account that one fish so taken may deposit as many as three thousand eggs many of which will result in a mature fish in a year or two, few can find a good reason for revoking such an order.

The winter season when fishing through the ice is indulged in is just as important for at this season and at this time the fish are easily caught in large numbers on almost any kind of a line or bait. There is no sport in this sort of fishing, and while it supplies a large amount of food to those who may think they need it, the result so far as summer fishing is concerned is disastrous. I have no doubt that with a system of rearing ponds in connection with your hatcheries, and with the large number of fry produced each year, that you will be able to gradually improve fishing in most of the streams stocked if the closed season is continued. In any event your efforts should be encouraged by all those who go fishing, all who appreciate the value to Montana which the streams and lakes have.

The growth of outing places, the private cabins along lakes and streams, all testify to an awakened interest in the out-of-doors. To all of those who have such places the fishing is of prime interest, while many do not fish at all there are none who would not welcome a mess of trout for the dinner table nor scoff at the one who caught them.

I can not speak for other places, but in Missoula the local Anglers Association is doing good work, not only in keeping interest alive in the stocking of streams, but in the active work of stocking. Every stream has its share of attention, and every reasonable request made by an individual is given attention. The interest shown by the officers and members is not casual and occasional, it is earnest in the first place and continuous in the next. The members are always "on the

job"—they co-operate in every way possible, and while once in a while we find a member who will not tell where he caught his fine lot, most are anxious that other should know.

If there is any part of the state where suitable streams are to be found, or where the streams have been depleted, and there is no organization of anglers one should be formed, local interest aroused and work done along the lines of effort now followed by the older clubs.

No one thing will add so much to the happiness of the coming generation as streams and lakes where good fishing may be found at the proper season.

It is of more than passing interest that some of the more prominent and wealthy men have taken so great an interest in this matter, that they have built hatcheries at their own cost and have dedicated the same to the public. Much good will result for the hatcheries so built are at points where fry may be quickly distributed to proper streams with little or no loss and at small expense.

One of the encouraging signs in your work is the deep interest which all of those engaged in it take in the results obtained. There might be a better way than that now in use for determining results of plantings made. I know that a complete record of all shipments of fry have been kept, but I do not know whether all anglers' clubs and other distributing agencies have kept a record of plantings made, with a record of the time when made nor the name of the stream in which made. Even with this data at hand we would know little of results except the often-heard expression "fishing is good—or bad" as the case may be, from the many streams, and there seems to be no way in which information can be accurately obtained covering this question.

There can be little doubt that the work of stocking streams which has been done in the past has done much good, otherwise the intensive fishing of the past few years would have entirely depleted many of our streams where now fishing is fairly good. The beneficial results may be best understood by considering those streams where varieties have been planted not indigenous to the waters. There are many places where the rainbow trout, the eastern brook trout, and in some places where the grayling has been planted that good fishing may be had. I make no mention of the Locklevin trout in the Madison river, but that stream evidences the good effects of plantings not only in the case of the variety mentioned but in the case of the rainbow trout.

Where there are so many fine clear streams and rivers, so many beautiful lakes where fish may grow, and where all conditions supplied by nature are favorable, it would be a crime not to do our best to preserve what we now have, and a great mistake not to try to improve present conditions.

Yours very truly,

W. M. BICKFORD.

Work of the Superintendent of Hatcheries

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By J. H. BRUNSON.

Since the creation of the new Commission, hatcheries have been constructed at Red Lodge, Big Timber, Lewistown, Great Falls, Ovando, Georgetown Lake, and the operation of the Hamilton Hatchery constructed and owned by Marcus Daly, has been turned over to the Department. The acquisition of these new stations will increase the output of this Department, besides, due to their locations a considerable sum will be saved annually on the costs of distribution.

Added to this is a more pronounced feeling of general satisfaction among the sportsmen, for now they are no longer dependent upon the supply of fish for their streams and lakes from the hatcheries at Anaconda and Somers, it is possible for some of them to go get their fish in person, and for others an assurance of more prompt attention and not infrequently, better delivery and larger numbers, since to have to carry fish long distances successfully by messenger it is necessary to cut down the number of fish per can.

It cannot be expected that fish carried for several hours in transportation cans, the temperatures of the water in the cans being reduced by the frequent addition of ice, can be anywhere equal to those which have only been enroute for a short period of time whereby it has not been necessary to reduce the water temperature materially. Rapid changes in the temperature of the water are often fatal to young fish. Fish taken out of water at 50 degrees F. and carried a long distance where it is necessary to reduce the water temperature to 36 degrees F. and in some instances lower, will not have the best chances to survive unless the person who liberates them raises the temperature of the water in the can by addition of the water, in which they are to be liberated, gradually, before the fish are allowed to escape from the can.



Too great emphasis cannot be placed on this phase of fish planting, for it is at this period that most of the fish are lost. To merely empty a can of fish into the water is not planting them. It is first necessary to equalize the temperature and great care should be given the matter. Notices are usually pasted on the sides of each can and applicants or those who are liberating the fry should familiarize themselves with the instruction before attempting to liberate the fish.

The Hamilton Hatchery was built primarily with the view of keeping the Bitter Root river and tributaries, and some lakes in that locality stocked, but since being operated by the Fish and Game Commission the district supplied by this station has been greatly enlarged. The Hamilton Hatchery is the largest hatchery building in the State. It has eighty large cement troughs.

The Ovando Hatchery was constructed from funds contributed by W. A. Clark, Jr. It is located right in the village of Ovando, and is to be used in conjunction with the rearing ponds at that place. It contains sixteen troughs, which will provide sufficient capacity for stocking the Blackfoot river and tributaries; also the Clearwater chain of lakes. The advantage of this station will be that it will not be necessary to haul fish from Missoula to Ovando and from there to the various lakes and streams, as has been done in the past.

The Great Falls Hatchery was constructed jointly by the Montana Power Company and the Montana Fish and Game Commission. The Montana Power Company donating the site and water, together with a contribution of \$3,500.00, the Company also agreeing to furnish the power to pump the water from the spring to the hatchery free. Of all the stations operated by this department living quarters for the employee in charge of this station is of greater necessity than at any of the other stations.

The Lewistown Hatchery was built by the citizens of Lewistown through the efforts of their local Rod and Gun club. It is only operated for a few months during the year for hatching eggs of the Rainbow and Native Trout.

The Big Timber Hatchery was built by the Commission on a site furnished by the Big Timber Rod and Gun club. There is a spring on the property which furnishes an abundant water supply for the sta-



KILLED IN ONE DAY BY BEEBE

tion. This station will be a great advantage to the sportsmen in that section of the State, since it is on the main line of the Northern Pacific Railway and is much easier to ship fish from there during certain seasons of the year than can be done from the station at Emigrant.

The Red Lodge Hatchery is located in the Bear Tooth National Forest on a site donated by the Forestry Department. Its use is for stocking the waters of the Bear Tooth National Forest. It is located twelve miles from Red Lodge.

The Emigrant Hatchery has been in the process of being built since it was first begun in 1919. From the time the Hatchery was first used the largest fish distributed by the department have always been shipped from the Emigrant station. The thing which has held up the completion of this station more than anything else has been the fact that due to a mistake on the part of the person or persons who located the hatchery building site, it was forgotten to select the site within the bounds of the land that was donated to the commission. Rearing Ponds were constructed at this station in October, 1920, they have been a pronounced success, but the continual trampling of innumerable sheep, cattle and hogs crossing from one side to the other especially during the time when fish are being held therein, makes the work disheartening. At certain seasons of the year it requires the attention of one employee to keep the new born lambs out of the ponds. The location of this station would make it one of the most important of all stations operated by the commission, could it be finally completed. Under present conditions it is impossible to do any ground work of a permanent nature, or to build a suitable road leading from the Yellowstone Trail to the Hatchery, a distance of perhaps two or three hundred yards.

The Georgetown Hatchery has been constructed by the Commission. It is to be used primarily for the eyeing of eggs, and is confidently expected to pay for itself the first year of operation in the saving of eggs, since to move green eggs always results in more or less loss. It will hold several million eggs until they are eyed when they will be shipped to other sections of the State to the various hatcheries operated by the Commission. A small, attractive, yet inexpensive cottage has been built to house the employees of the Department during the egg collecting season. Across the lake at Flint Creek a cottage has been built to house the employees during the egg collecting season. Permanent traps have also been built at Flint Creek. Those which have been installed previous to the present ones could not be termed permanent because they usually wash away as soon as the creek begins to rise. There has been considerable work done at Flint Creek, but there were enough eggs lost in one night, due to the previous traps washing out, to more than pay for all the work that has been done there this fall. Flint Creek produces more eggs of Rainbow, Native and Grayling than all the other stations operated by the Department combined. With the facilities now obtaining at both Georgetown and Flint Creek, it will be possible to handle the work in a thorough and methodical manner, something which could not be done in the past. After the egg season the Georgetown Hatchery will hatch sufficient fish for stocking the neighboring streams in Granite County, thus relieving the Anaconda Station of a portion of its work.

There are two types of rearing ponds, natural rearing ponds where natural food is available and fish are not fed artificial food, and artificial rearing ponds wherein the fish are fed artificial food daily by an attendant.

The type of pond termed natural rearing pond would be a pond created by simply providing headgates and an overflow dam at the lower end. The headgate to prevent the fish from ascending, and an

overflow at the lower end to maintain the water at a certain depth at all times during the time the fish are being held in the pond. Such ponds are usually created by using an old creek bed through which the water does not flow except during flood stages providing head gates, dam and overflow at the lower end, water from the stream being fed into the pond, and prior to the time the fish are placed there, fresh water shrimp are planted to furnish food for the fish after they have been placed into the pond.

At Ovando the topography of the country was such that where the ponds have been constructed all that was necessary was to build a small dam at the expense of a few dollars and a large area would be made into a pond. The ground being a hay meadow, as soon as it was flooded with water, food began to appear in a short time and with the addition of a few plantings of fresh water shrimp, has been able to support large numbers of fish.

Such ponds as those at Ovando are the exception rather than the rule, and it is very doubtful whether other places can be found where ponds can be created with as little expense, as large a water area and with abundant food.

The Ovando ponds are teeming with fresh water shrimp and large numbers of fry have been reared to the fingerling stage, in fact, held for a year and then liberated.

There is no expense attached to maintaining ponds such as these, nor is it necessary to have an attendant in charge, the only cost for operating such ponds, excepting the construction of the overflow dams, is hauling the fish to them and hauling them away the next season.

Other ponds of this type have been constructed in other parts of Montana and reports are to the effect that they are a success.

Ponds of the type of those at the Fisheries Station at Emigrant, and in Greenough Park, Missoula, are what are termed artificial rearing ponds. At both these places the ponds had at one time been an old channel of the creek. The ponds at Missoula are much larger than those at Emigrant and also have an unlimited water supply, while the ponds at Emigrant have a decidedly limited supply of water. At both these ponds the fish are fed several times daily and the growth they attain is wonderful. When fish are held in this type of pond for six or eight weeks, the chances of their attaining the adult stage after being planted are enhanced.

The ponds at Missoula, and all work in connection therewith, is under the supervision of the Western Montana Sportsmen's Association, and this club is entitled to great credit for the remarkable work they are doing. All the Fish and Game Department have to do from now on is simply supply the number of fish necessary for properly restocking and keeping stocked the streams and lakes in that portion of Montana, the fish to be supplied when they are able to swim and have been fed for a few days, the Missoula club will then place them into the rearing ponds, feed them and when ready to liberate will haul the fish to the waters which are to be stocked, and do the liberating in a thorough and methodical manner. Sportsmen desirous of doing a similar work should visit the Missoula ponds and see what all is being accomplished there.

The ponds at Emigrant are an auxiliary to the Emigrant Hatchery and are maintained by the Department.

RESCUE OF BASS AND SUNFISH IN FLATHEAD COUNTY

This season extensive work was done rescuing young bass and sunfish from the sloughs along the Flathead river. During the spring when the river is high, the parent fish of both species resort to the still eddies or channels along the banks of the Flathead river, where due to the water being quiet and still the temperature is considerably

higher than that of the river, and deposit their eggs. When the high water recedes the parent fish usually go with it, and thus return to the river.

The deposited eggs remain and hatch and as the hot weather approaches the sloughs and channels begin to dry up and the fry hatched from the eggs are left in little potholes. Were it not for the efforts of the department in rescuing these fish, they would be a total loss, since most of these potholes go completely dry during the summer. The department rescues the young fishes, seining them out of the little potholes and transferring them to the river and other bodies of water, some being shipped to other portions of the state where they are liberated in streams and lakes suitable to their nature.

This work in Flathead county is limited and will not supply all the fish necessary for stocking the many streams and lakes of Eastern Montana, therefore, it will be necessary to seek other fields and other means for carrying on this important work. The personnel of this department is too small, and the present tasks too large to hope to give this work the attention it requires for some time, however, each season every effort will be made to rescue the fishes along the Flathead river, transferring them to suitable waters, as has been done in the past.

THE INTRODUCTION OF THE CHINOOK SALMON (*Oncorhynchus Tschawytsha*.)

This species of salmon has been introduced with marked success in Ronan Lake. It has met with instant favor among anglers due to its fighting instinct which resembles that of the rainbow, its size and the flavor of its flesh. Specimens have been obtained which were more than thirty-six inches long. Such specimens when prime would weight twenty-five or thirty pounds, but at the time the specimen mentioned was captured, due to spawning activities, it was in a very poor condition.

This species, as well as others native to the Pacific coast, do not eat from the time they begin working on the spawning beds until after their spawning is completed, when they die. It has been hoped that they might live after spawning in our fresh water lakes, but examination of the spawned out fish prove that they pass through the same stages of emaciation as do those which run to their spawning grounds direct from the ocean, and with the same results—death usually resulting after the spawning has been completed. In order to keep the waters stocked with this species it is necessary to obtain eggs each season from the Coast.

One of the singular features attending the introduction of this species into the fresh water lakes of Montana is the fact that they reproduce, eggs having been taken from spawning fish on more than one occasion. It is known that the reproduction of the species is not sufficient to perpetuate the species without the repeated liberation of fry hatched from eggs obtained from the Pacific coast. These eggs are expensive and are difficult to obtain, for this reason, together with the fact that they will not thrive in all waters, a general distribution throughout the state is not recommended.

PRIVATE HATCHERIES AND THOSE OPERATED BY CLUBS

Taken as a whole privately owned and operated hatcheries, as well as those owned and operated by a Club can not be considered a success from every point of view. The output of such hatcheries is not known to this department. It can not be said that they are not possibly doing a great and meritorious work, but there are several angles to the question. For the Department to accept such hatcheries and operate them will lead to serious consequences later on. For the

Department to supply fish eggs for such hatcheries will lead to the same end. It would not be impossible for numerous Clubs in the state to erect inexpensive hatcheries containing a few troughs and then turn them over to the state to operate. Hatcheries suitable for hatching rainbow and native trout can be built for two or three hundred dollars, in fact all that is necessary to hatch eggs of this species and to hold the fish until they are ready to take food or be planted in the fry stage is a few troughs and a sun-shade. Other Clubs may desire to operate their own hatcheries, but must have eggs furnished them, in such cases the Commission will be called upon to supply the eggs, the resultant fry being placed wherever the Club desires. Such conditions may never obtain, but it would be well for the Commission to make a stand right now on this question. The Commission should not supply eggs or operate hatcheries which have been built without the sanction of the Commission. The finances of the Fish and Game Department are limited to the sale of Hunting and Fishing Licenses, Shipping Permits, Fines and Confiscations, Trapping Permits, and are for this reason decidedly limited, and the operation of the present chain of hatcheries to their capacity together with the expenditures for law enforcement taxes, the revenues of the department to the fullest extent.



Biological and Educational Work

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The educational and biological branch of the Fish and Game department, collaborating with the secretary's office of the Montana Sportsmen's association, has done what it could, with the funds available, to create a new atmosphere of support and cooperation about the sportsmen's department. This work has included the organization of a number of new sportsmen's clubs in various parts of the state and the reviving of several old clubs that had subsided to the point of mere existence. The head of this department has made over 170 public addresses before schools, sportsmen's organizations, chambers of commerce, Rotary, Kiwanis and Lions clubs and various other organizations, in spreading the gospel of a higher and more enlightened standard of sportsmanship. During 1922 a quarterly bulletin, *The Big Horn*, was issued and has attained a circulation of 4,000, affording a splendid medium of information, education and publicity, of which one national biologist writes: "It certainly is the best thing published by any state organization in the country." Another national game conservationist writes: "The success of *The Big Horn* is so evident and so satisfactory that the Permanent Fund is going to enclose herewith another subscription of \$200 for the purpose of speeding this gallant publication on its way for another year."

The work being done by these new and revived sportsmen's clubs, not only in receiving and planting fish and birds, but in waging war against the natural enemies of our fish and game and in building up a healthy public sentiment favorable to the progressive programs of the Commission and the Sportsmen's association, is proving of unquestionable and immeasurable value to the sportsmen's cause.

Perhaps one very material obstacle to more general acceptance of a progressive game conservation program in Montana is the fact that there is in some sections of the state still quite an abundance of game. Facing the fact that since the advent of the automobile, at least, there has been a consistent, persistent and positive decrease in the number of elk and deer in Montana and just as persistent and positive an increase in the number of hunters, many of our sportsmen assume a passive and disinterested attitude toward a game conservation program and many others even array themselves against every movement to preserve our heritage of desirable wild life. They are still able to reap the rewards of keen eyesight, steady nerves and a true aim and do not trouble to look further into the situation. Montana is passing through the same experiences that Pennsylvania, Vermont, New York and other of the eastern game states passed through when first game conservation was attempted in them. With their decades of game conservation history to draw upon, Montana sportsmen should be able to progress with fewer missteps.

The need of education, not so much along lines of game conservation methods as of actual conditions in Montana, is very apparent. A thorough knowledge of Montana's game and actual conditions surrounding it would give ready birth to that standard of sportsmanship that dares be measured by "the thing within that cannot."

Therefore, from the viewpoint of this department, while real advancement has and is being made and we are on a sound and efficient organization basis, there is a huge task still ahead and more funds and more energy and effort are needed for educational and biological work in our department.

M. S. CARPENTER.

		<i>Fishing Facts and Figures</i>		
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(By Harry L. Wilson)

In Montana's mountain regions I have sought the elk and deer,
With sufficient ammunition to inspire the world with fear;
With my tried and trusty rifle I have sallied forth in hope
Of puncturing the vitals of the agile antelope.
On towering peaks and pinnacles o'erlooking canyons deep,
I've sought to come in contact with the stately mountain sheep;
But each intended victim of my wild desire to slay
On other urgent business has been summoned far away;
For the heartaches and the backaches of the fruitless hunting trip
I have had to seek my solace in the bottle on the hip.

In the early autumn mornings I have left my cozy cot,
And motored to a duck pond, or some other muddy spot,
And there have shook and shivered in the chill October breeze,
With the icy mud and water splashing 'round my B. V. D.'s;
Or in a boat that's leaky, and wobbly on its keel,
I've exploded tons of powder at the mallard and the teal;
But in each and every instance when the fusillade is through
My hunting sack is empty and my shoulder black and blue;
I journey sadly homeward without an ounce of meat,
And purchase from the butcher a nice tame duck to eat.

I have sought the little fishes in Montana's mountain brooks,
I have tempted them with spinners and a lot of fancy hooks,
Gray Hackles and Professors I have dangled from a pole,
And dropped the Royal Coachman into many a fishin' hole.
The luscious little minnows I have gathered in a net,
And dug up quarts of angle worms in summer's heat and sweat;
The very active 'hopper I have chased across the flats,
Bought salmon eggs and liver, and collected flies and gnats;
But all these danty morsels the little fishes flout,
I've never found a diet which would satisfy a trout.

I've invested lots of lucre in those fancy jointed rods,
For shiny reels and baskets I have squandered many wads;
Bought landing nets and leaders and highly colored lines
And got a fishin' license to avoid a lot of fines.
In the dead of night I've traveled to some distant mountain stream,
To fill a spacious basket e're the sun began to beam;
I've sneaked through brush and brambles to some famous fishing spot,
But always when I get there the wise old fish are not;
They seem to know by instinct that whenever I'm about,
It's neither fit nor proper for them to venture out.

And when I get no fishes in a hole where they are thick,
They tell me that the reason is the wind blows up the "crick,"
If I have flies and spinners, they tell me, sure as fate,
That I must get a 'hopper, or some other foolish bait;
And when I get the 'hopper all adjusted for a bite,
I find that he is useless, 'cause the sun's too cussed bright.
Sometimes when whole battalions of the finny tribe go by,
They won't bite because the water in the river is so high;
At other times I see them floating 'round me smooth and slow,
But by nothing can be tempted, 'cause the river is so low.

And when the dusk of evening on the stream begins to fall,
I trudge home wet and hungry, and possess no fish at all,
I always meet some country kid with tousled head of hair,
And when I say "How's fishin' kid?" he answers "Oh, just fair";
And then I note the burden he has upon his back,
Some fifty trout reposing in a dirty gunny sack;
He has no fancy basket, and he has no jointed pole,
A willow and a piece of string have pulled 'em from the hole.
And then I light another pill, and let my language loose,
And swear I'll never go again—'cause what the hell's the use?

Rave on, you Isaac Walton's, of the glories of the stream,
As the sunshine of existence you afford me not a gleam;
The romance of the brooklet I can never seem to get,
To me it's merely water which is devilish cold and wet.
If the poetry of motion lies in casting out a line,
I'll have prosaic movement in the portion which is mine.
For when gently on the water I essay the fly to cast,
It lodges in my panties, and remain there, hard and fast,
And when from hide and clothing I at last have cut it free,
And cast again—it always snags a rock or bush or tree.

You embryo Kit Carsons, with your trophies of the chase,
I envy not your prowess, and I covet not your place,
This plunging into snowdrifts, and hiking up a hill,
Is not an occupation which affords me any thrill;
I'm tired of shooting shotguns with a sixteen ton recoil,
And applying to my bruises Sloan's liniment and oil.
I'd rather let the canvas-back remain at large and free,
Than have a cockeyed shotgun make a total wreck of me.
I'd rather let the deer and elk forever snort and sniff,
Than break my neck through stumbling down some rocky mountain cliff.

Stand up, you jitney tourists, and wave your arms and shout,
And tell about the rapture of a life of camping out.
My memory reminds me of the sleepless nights I've spent,
Congealing in the rain-drops trickling through a leaky tent.
No longing for the great out-doors with great insistent tugs,
Instead I see mosquitoes and the rattlesnakes and bugs.
I see the dirt and gravel in the greasy frying pans,
The consumptive looking fluid that they buy for milk—in cans.
The camp-fire which contributes so much burning, blistering heat,
with its smoke which chokes and strangles when you attempt to eat.

You take the open spaces, and give me a house instead,
You sleep on boughs and boulders, but give me a standard bed.
Go plunge into the mountain stream, and give your skin a thrill,
But for me turn on the faucets in the bathtub, if you will.
Go eat your beans and bacon in the rain and snow and muck,
If I can reach a table I will feel that I'm in luck.
You are welcome to the victuals which are interspersed with ants,
With wifey's kitchen products I will gladly take a chance.
You hunters and you anglers, here's to you as you roam,
The more I see of camp-life the more I think of home.

FOOT NOTE.

The above poem was recited by its author at the 9th Annual Banquet of the Western Montana Fish and Game Association held at Missoula on the evening of January 20th, 1922. This was Mr. Wilson's last public utterance as he died very suddenly the following day.

LICENSES ISSUED IN 1921

59,348	Resident Citizen	@	\$ 2.00	\$118,697.50	(1 @ \$ 3.50)
1,879	Non-Resident Citizen Fishing.....	@	3.50	6,589.50	(2 @ 10.00)
660	General Non-Resident Citizen.....	@	30.00	1,980.00	
38	Limited Non-Resident Citizen.....	@	10.00	380.00	
5	General Alien	@	50.00	250.00	
198	Alien Fishing	@	10.00	1,980.00	
112	Official Receipts	@	2.00	233.00	(6 @ 3.50)
Total					\$130,110.00

Miscellaneous Licenses—

1,306	Shipping Permits	@	\$.50	\$ 653.00	
49	Guides License	@	10.00	490.00	
1	Scientific Permit.....	@	5.00	5.00	
37	Seining License "A".....	@	5.00	185.00	
1	Seining License "B".....	@	5.00	5.00	
7	Game Farm Licenses.....	@	5.00	35.00	
242	Beaver Trapping Licenses.....	@	5.00	1,210.00	
227	Marten Trapping Licenses.....	@	1.00	227.00	
479	Beaver Tags.....	@	.50	239.50	
8	Taxidermist Licenses.....	@	25.00	200.00	
14	Private Pond Licenses.....	@	5.00	70.00	
Total					\$ 3,319.50
Grand Total					\$133,429.50

Of the above amount 15c a license was allowed to dealers and 25c of each license went to the Biological fund, these two fees applying only to the Hunting and Fishing Licenses.

Dealers Fees.....	\$ 8,901.15	
Biological Fund	15,393.00	
Game Fund	109,135.35	
		\$133,429.50

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LICENSES AND PERMITS ISSUED IN 1922

50,508	Resident Citizen	@	\$ 2.00	\$101,016.00
1,620	Non-Resident Citizen Fishing.....	@	3.50	5,670.00
65	Non-Resident Citizen General.....	@	30.00	1,950.00
33	Non-Resident Citizen Limited	@	10.00	330.00
3	General Alien	@	50.00	150.00
195	Alien Fishing	@	10.00	1,950.00
669	Shipping Permits	@	.50	334.50
37	Guides Licenses	@	10.00	370.00
21	Seining Public Waters Form "A"	@	5.00	105.00
2	Seining Public Waters Form "B"	@	5.00	10.00
4	Game Farms	@	5.00	20.00
5	Private Ponds	@	5.00	25.00
165	Marten Trapping Licenses	@	1.00	165.00
244	Beaver Trapping Licenses	@	5.00	1,220.00
2,430	Beaver Tags	@	.50	1,215.00
1	Alien Gun	@	25.00	25.00

Total Fees Charged	\$114,555.50
Less Commissions paid to Agents for Selling 50,564 Licenses @ .15	7,584.60

Total Amount turned into the State Treasurer.... \$106,970.90

Biological Survey Fund received \$13,057.25, derived as follows:

52,229 Licenses @ .25 each.	
Fish and Game Fund.....	\$ 93,913.65
Biological Fund	13,057.25
Total	\$106,970.90

These complaints were instituted in the following counties:

Beaverhead	24
Broadwater	1
Carbon	37
Cascade	8
Custer	1
Deer Lodge	16
Fergus	5
Flathead	18
Gallatin	26
Granite	1
Glacier	1
Golden Valley	4
Jdith Basin	3
Lewis and Clark	11
Lincoln	14
Madison	8
Mineral	4
Missoula	5
Musselshell	5
Park	9
Phillips	8
Powell	6
Sanders	17
Silver Bow	8
Stillwater	10
Sweetgrass	6
Teton	1
Toole	5
Yellowstone	16
	278

These cases were disposed of as follows:

Convictions	239
Acquittals	25
Pending	14
	278
Jail sentences	2
Fines imposed	\$7,517.90



A. A. O'Claire, deputy warden of Kalispell, found this moose and its mate in Flathead river. The snow was so deep on all sides that they could not get out. Warden O'Claire spent a whole day carrying brush to the river which sufficed for feed enough to carry them through until they were able to get out.

Killing deer out of season	12
Killing wild ducks out of season.....	4
Killing elk out of season.....	3
Killing elk in closed territory	2
Killing elk on Game Preserve	18
Killing game birds out of season.....	1
Killing moose	2
Killing mountain sheep	2
Possession of over 50 fish.....	2
Selling beaver skins without a permit.....	2
Selling game fish	2
Selling elk teeth	1
Shipping game fish without a permit	1
Shipping beaver skins without a permit.....	2
Shooting game birds in closed territory.....	3
Swearing to false statement in applying for Hunting and Fishing License...	1
Trapping fur bearing animals out of season.....	2
Trapping marten without a license.....	1
Unlawful fishing	5
Unlawful possession of gill net	1
Unlawful possession of venison	6
Using more than one seine	1
Violation of Alien Gun Law.....	61

336



These complaints were instituted in the following counties:

Beaverhead	8
Big Horn ..	1
Broadwater	1
Blaine	9
Carbon	30
Cascade	25
Chouteau	1
Deer Lodge ..	11
Fergus	11
Flathead	13
Gallatin	36
Granite	4
Glacier	5
Hill	2
Jefferson	1
Judith Basin ..	2
Lewis and Clark ..	8
Lincoln	11
Madison	8
Meagher	6
Mineral	11
Missoula	18
Musselshell	1
Park	17
Phillips	4
Powell	10
Pondera	1
Ravalli	10
Roosevelt	2
Rosebud	1
Sanders	22
Sheridan	3
Silver Bow	13
Stillwater	8
Sweetgrass	5
Toole	2
Valley	1
Yellowstone	14
Wheatland	1
	336

These cases were disposed of as follows:

Convictions	292
Acquitted	44
	336
Reform School ..	2
Jail Sentence ..	1
Fines imposed	\$8,501.60



THE REASON DEER ARE NOT SO PLENTIFUL

The records of this office show that 278 arrests have been made between May 1, 1922, and January 1, 1923, on complaints as follows:

Aliens in possession of Resident Citizen's License.....	31
Capturing a fawn.....	1
Catching game fish during closed season.....	7
Capturing wild ducks.....	2
Destroying evidence of sex of deer.....	2
Dumping refuse in streams.....	2
Fishing without a license.....	64
Fishing through the ice.....	3
Fishing within spawning grounds.....	3
Fishing in closed streams.....	6
Having over the limit of game fish.....	3
Hunting without a license.....	12
Hunting on game preserve.....	7
Killing beaver without a license.....	3
Killing Chinese Pheasants.....	2
Killing doe deer.....	6
Killing deer without visible horns.....	1
Killing deer out of season.....	4
Killing ducks out of season.....	4
Killing more than one elk.....	1
Killing a swan.....	1
Killing game birds out of season.....	22
Killing mountain sheep.....	1
Possession of wild geese without a license.....	4
Possession of over 50 fish.....	1
Shooting game birds in closed territory.....	1
Swearing to false statement in applying for Hunting and Fishing License.....	19
Trapping fur bearing animals out of season.....	13
Trapping without a license.....	5
Trapping marten without a license.....	1
Using gill net.....	1
Unlawful fishing.....	5
Unlawful possession of venison.....	3
Violation of Alien Gun Law.....	36
	278

Report Made to the Chairman of the Fish & Game Commission, and Other Members by J. H. Brunson, Superintendent State Fisheries.

FISH AND EGGS PLANTED—JANUARY 1, 1921, APRIL 30, 1921.

Fish:		
Native Whitefish.....	600,000	
Eastern Brook Trout.....	2,131,000	
Total fish.....	2,731,000	
Eggs.....	000,000	
Total eggs.....	000,000	
Total fish and eggs(Jan. 1, 1921, to April 30, 1922.....		2,731,000

April 30, 1921—April 30, 1922

Fish:		
Native whitefish.....	1,750,000	
Lake Superior whitefish.....	3,800,000	
Lake Trout.....	70,000	
Eastern Brook trout.....	4,632,100	
Chinook Salmon.....	502,500	
Montana Grayling.....	18,850,000	
Native Trout.....	9,324,216	
Rainbow Trout.....	508,100	
Sunfish.....	100	
Bass.....	2,400	
Total fish.....	39,439,416	
Eggs:		
Native Trout.....	1,874,120	
Montana Grayling.....	2,146,200	
Total eggs.....	4,020,320	
Total fish and eggs April 30, 1921 to April 30, 1922.....		43,459,736

April 30, 1922—October 31, 1922

Fish:

Lake Superior Whitefish	2,400.00
Eastern Brook Trout	1,857.140
Chinook Salmon	1,258.100
Montana Grayling	8,950.000
Native Trout	10,193.994
Rainbow Trout	2,303.652
Adult Sunfish	1.315
Sunfish fry	6.700
Bass	55.250

Total fish 27,366.191

Eggs :

Native Trout	2,954.120
Rainbow Trout	152.200
Montana Grayling	373.000

Total eggs 4,378.320

Total fish and eggs, April 30, 1921, to Oct

31, 1922 31,704.501

January 1, 1921 to October 31, 1922

Fish:

Native Whitefish	2,350.000
Lake Superior Whitefish	6,200.000
Eastern Brook Trout	8,620.240
Lake Trout	70.000
Chinook Salmon	1,760.600
Montana Grayling	27,800.000
Native Trout	19,818.210
Rainbow Trout	2,811.752
Sunfish fry	6.700
Adult Sunfish	1.445
Bass	57.650

Total fish 69,196.597

Eggs sent to other than State Hatcheries and planted by them:

Native Trout	5,728.240
Rainbow Trout	152.200
Montana Grayling	2,518.200

Total eggs 8,398.640

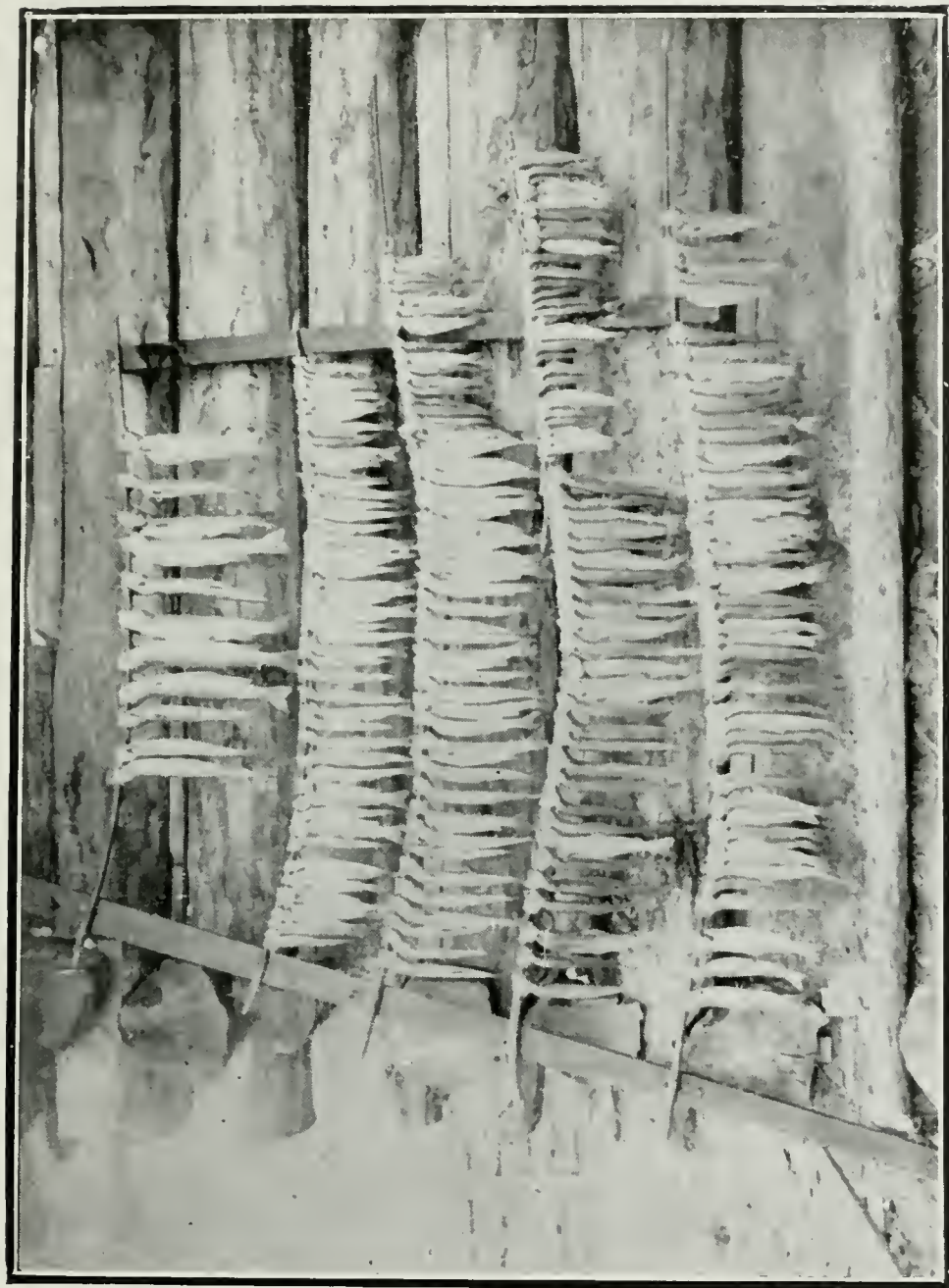
Total fish and eggs 77,895.237

Statement of Salaries and Expenses of Employees of the Fish and Game Department from July 1, 1921 to June 30, 1922:

Position	Salary	Expense	Total
Office	\$10,925.00	\$ 2,351.19	\$13,276.19
Biological	1,500.00		1,500.00
Commission	244.53		244.53
Deputy Game	33,025.08	13,749.88	46,774.96
Propagation	21,757.73	8,405.92	30,163.65
Total	\$67,452.34	\$24,506.99	\$91,959.33

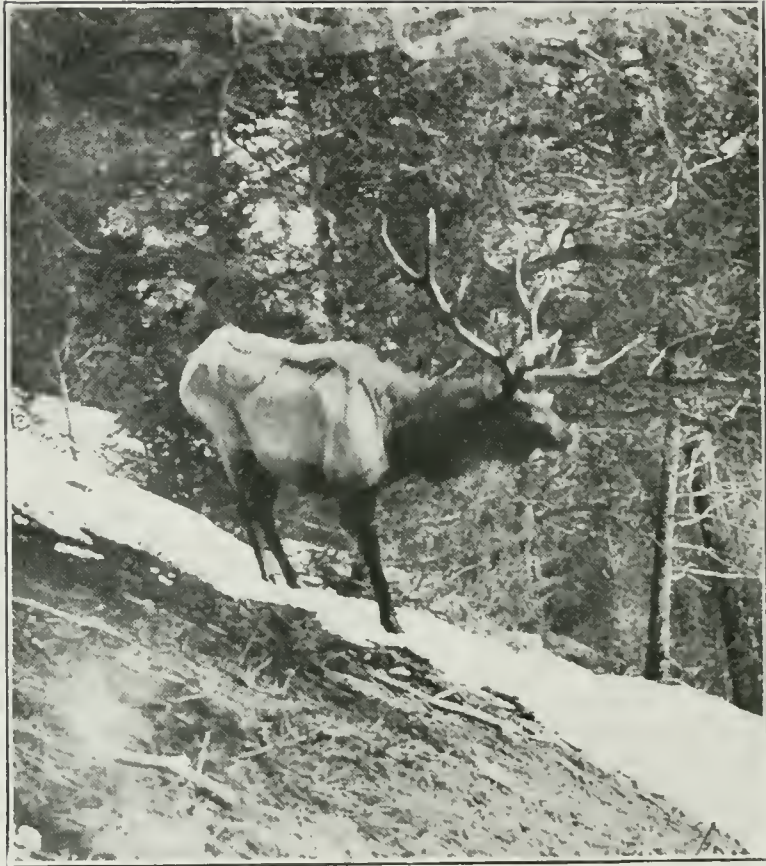
Statement of Salaries and Expenses of the Employees of the Fish and Game Department from July 1, 1922 to December 30, 1922:

Position	Salary	Expense	Total
Office	\$ 5,651.53	\$ 1,101.75	\$ 6,753.28
Biological	750.00		750.00
Commission	450.00		450.00
Deputy Game Warden	16,605.00	7,377.73	23,982.73
Propagation	13,569.26	5,708.92	19,278.18
Total	\$37,025.79	\$14,188.40	\$51,214.19



THE REASON THE FISHING IS NOT ALWAYS GOOD

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HIS LAST WINTER



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A Careful Study of this Poster May Save Some Lives

C. A. JAKWAYS, State Game and Fish Warden



A hunter popped a partridge on a hill,
It made a great to-do and then was still.
It seems (when later on his bag he spied)
It was—the guide.

One shot a squirrel in a near by wood
A pretty shot, off-hand, from where he stood.
It wore, they said, a shooting hat of brown,
And lived intown.

A "cautious" man espied a gleam of brown.
Was it a deer—or Jones (a friend from town)?
But while he pondered by the river's rim,
Jones potted him.

And one dispatched a rabbit for his haul,
That later proved to measure six feet tall.
And lest you think I'm handing you a myth,
It's name was Smith.

Another Nimrod slew the champion tox.
He glimpsed him lurking in among the rocks.
One rapid shot! It never spoke nor moved,
The inquest proved



OCCARDELL
FEB 18 1969
Biology
UNIVERSITY OF MONTANA

